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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/742,415 | 12/22/2000 | Michio Yanagi | 35.C14997 | 8025 |

5514 7590 02/21/2003

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| EXAMINER |
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SHAHER, RICKY D

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| ART UNIT | PAPER NUMBER |
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2872

DATE MAILED: 02/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/742,415

Applicant(s)

YANAGI ET AL

Examiner

R. O. SHAFFER

Group Art Unit

2872

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 month MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ Responsive to communication(s) filed on 12/10/02

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-26 is/are pending in the application.

Of the above claim(s) 11-13 AND 23-25 is/are withdrawn from consideration.

☐ Claim(s) is/are allowed.

☐ Claim(s) is/are rejected.

☐ Claim(s) is/are objected to.

☒ Claim(s) 1-10, 14-22 AND 26 are subject to restriction or election requirement

Application Papers

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____

☐ Copies of the certified copies of the priority documents have been received

in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Other _____

Office Action Summary

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1. Applicant's election of species "A", depicted by Fig. 1, in Paper No. 7 is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 11-13 and 23-25 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species. Election was made without traverse in Paper No. 7.

3. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 2, 5-10, and 14, drawn to a metallic mirror having an aluminum or aluminum alloy substrate, an TiO₂ intermediate layer, a Cu metallic reflective layer, and at least one protective layer, classified in class 359, subclass 884.
- II. Claim 3, drawn to a metallic mirror having an aluminum or aluminum alloy substrate, an TiO₂ intermediate layer and a Cu metallic reflective layer with particular surface reflectance details, classified in class 359, subclass 838.
- III. Claim 4, drawn to a metallic mirror having an aluminum or aluminum alloy substrate, an TiO₂ intermediate layer, and a Cu metallic reflective layer with particular substrate (rotary polygonal) details, classified in class 359, subclass 850.
- IV. Claims 15-22 and 26, drawn to a process for producing a metallic rotary polygonal mirror comprising forming an intermediate layer of TiO₂ by vacuum deposition on a metallic polygonal mirror substrate of aluminum or aluminum alloy, forming a

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high reflectance metallic reflective layer of Cu by vacuum deposition on the intermediate layer and forming at least one protective layer of Al₂O₃ by vacuum deposition on the reflective layer, classified in class 427, subclass 162.

4. Claim 1 link(s) inventions I, II and III. The restriction requirement among the linked inventions is subject to the nonallowance of the linking claim(s), claim 1. Upon the allowance of the linking claim(s), the restriction requirement as to the linked inventions shall be withdrawn and any claim(s) depending from or otherwise including all the limitations of the allowable linking claim(s) will be entitled to examination in the instant application. Applicant(s) are advised that if any such claim(s) depending from or including all the limitations of the allowable linking claim(s) is/are presented in a continuation or divisional application, the claims of the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

5 The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because of the

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omission of the particular surface reflectance of 95% or higher (note by example claims 2 and 4-10). The subcombination has separate utility such as a mirror without at least one protective layer.

Inventions I and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because of the omission of the particular rotary polygonal details (note by example claims 2 and 4). The subcombination has separate utility such as a mirror without at least one protective layer.

Inventions IV and [(I),(II),(III)] are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process, such as one which does not require vacuum deposition (i.e. adhering the layers with an adhesive).

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification or because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

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7. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R.D. Shafer whose telephone number is (703) 308-4813.

RDS

February 20, 2003

R. D. Shafer
R. D. SHAFER
PATENT EXAMINER
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